# Special Issue

# Perovskite Solar Cells: Recent Advances and Future Trends

## Message from the Guest Editors

Due to their exceptional properties, perovskite materials have become a topic of great interest in the field of optoelectronics, capturing attention in both academia and industry. In recent years, advancements in crystal growth methodologies and device structure design have spearheaded progress in the efficiency and stability of perovskite solar cells. This Special Issue aims to cover all aspects related to the latest innovations in the crystallization regulation, defect passivation, module design, and device stability of perovskite solar cells. Special attention is paid to the effects of chemical or physical regulation on material crystallization and cell performance, such as solvent engineering, doping processes, carrier transport, ion migration, etc. We also welcome submissions analyzing large-area preparation, module structure design, and optoelectronic stability, as well as intending to include reports on tandem cell work related to perovskite materials. The scope of this Special Issue is broad, so we encourage submissions from a range of perspectives. We are pleased to invite you to contribute to this Special Issue. Full papers, communications, and comments are also welcome.

## Guest Editors

Dr. Jiazheng Zhou

Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong

Dr. Bingcheng Yu

Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong

## Deadline for manuscript submissions

20 September 2025

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/229243

*Materials*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials

# Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/materials

## About the Journal

### Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

### Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

### Author Benefits

**Open Access:**

free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:**

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

**Journal Rank:**

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)